	Chemical/Radiological Monitoring									
				CLs		Techniques	Significant Mon	itoring/Reporting		
SDWIS Codes	Contaminant	MCL (mg/*) ₁	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations		
Volatile	Organic Contaminants									
2378	1,2,4-Trichlorobenzene	0.07	0	0			9	9		
2380	cis-1,2-Dichloroethylene	0.07	0	0			9	9		
2955	Xylenes (total)	10	0	0			9	9		
2964	Dichloromethane	0.005	0	0			9	9		
2968	o-Dichlorobenzene	0.6	0	0			9	9		
2969	p-Dichlorobenzene	0.075	0	0			9	9		
2976	Vinyl chloride	0.002	0	0			9	9		
2977	1,1-Dichloroethylene	0.007	0	0			9	9		
2979	trans-1,2-Dichloroethylene	0.1	0	0			9	9		
2980	1,2-Dichloroethane	0.005	0	0			9	9		
2981	1,1,1-Trichloroethane	0.2	0	0			9	9		
2982	Carbon Tetrachloride	0.005	0	0			9	9		
2983	1,2-Dichloropropane	0.005	0	0			9	9		
2984	Trichloroethylene	0.005	0	0			9	9		
2985	1,1,2-Trichloroethane	0.005	0	0			9	9		
2987	Tetrachloroethylene	0.005	0	0			9	9		
2989	Monochlorobenzene	0.1	0	0			9	9		
2990	Benzene	0.005	0	0			9	9		
2991	Toluene	1	0	0			9	9		
2992	Ethylbenzene	0.7	0	0			9	9		
2996	Styrene	0.1	0	0			9	9		
Synthet	ic Organic Contaminants									
2005	Endrin	0.002	0	0			3	3		
2010	Lindane	0.0002	0	0			3	3		
2015	Methoxychlor	0.04	0	0			3	3		
2020	Toxaphene	0.003	0	0			3	3		
2031	Dalapon	0.2	0	0			0	0		
2032	Diquat	0.02	0	0			0	0		
2033	Endothall	0.1	0	0			0	0		
2034	Glyphosate	0.7	0	0			0	0		
2035	Di(2-ethylhexyl)adipate	0.4	0	0			0	0		
2036	Oxamyl (Vydate)	0.2	0	0			1	1		
2037	Simazine	0.004	0	0			3	3		
2039	Di(2-ethylhexyl)phthalate	0.006	0	0			0	0		
2040	Picloram	0.5	0	0			1	1		

2041	Dinoseb	0.007	0	0			1	1
2042	Hexachlorocyclopentadiene	0.05	0	0			3	3
2043	Aldicarb Sulfoxide	na					1	1
2044	Aldicarb Sulfone	na					1	1
2046	Carbofuran	0.04	0	0			1	1
2047	Aldicarb	na					1	1
2050	Atrazine	0.003	0	0			3	3
2051	Alachlor	0.002	0	0			3	3
2063	2,3,7,8-TCDD (Dioxin)	3x10-8	0	0			0	0
2065	Heptachlor	0.0004	0	0			3	3
2067	Heptachlor epoxide	0.0002	0	0			3	3
2105	2,4-D	0.07	0	0			1	1
2110	2,4,5-TP	0.05	0	0			1	1
2274	Hexachlorobenzene	0.001	0	0			3	3
2306	Benzo[a]pyrene	0.0002	0	0			0	0
2326	Pentachlorophenol	0.001	0	0			1	1
2383	Total polychlorinated biphenyls	0.0005	0	0			3	3
2931	1,2-Dibromo-3-chloropropane (DBCP)	0.0002	0	0			0	0
2946	Ethylene dibromide (EDB)	0.00005	0	0			0	0
2959	Chlordane	0.002	0	0			3	3
					_			
2265	Acrylamide				0	0		
2265 2257	Acrylamide Epichlorohydrin				0	0		
2257	Acrylamide Epichlorohydrin ic Contaminants							
2257	Epichlorohydrin	10 (as Nitrogen)	0	0			0	0
2257 Inorgan	Epichlorohydrin ic Contaminants	Nitrogen) 10 (as Nitrogen)	0 4	0 2			0 12	0 10
2257 Inorgan 1038 1040 1041	Epichlorohydrin ic Contaminants Total nitrate and nitrite Nitrate Nitrite	Nitrogen) 10 (as Nitrogen) 1 (as Nitrogen)	4	2			12 0	10
2257 Inorgan 1038 1040 1041 1005	Epichlorohydrin ic Contaminants Total nitrate and nitrite Nitrate Nitrite Arsenic	Nitrogen) 10 (as Nitrogen) 1 (as Nitrogen) 0.01	4 0 7	2 0 4			12 0 10	10 0 9
2257 Inorgan 1038 1040 1041 1005 1010	Epichlorohydrin ic Contaminants Total nitrate and nitrite Nitrate Nitrite Arsenic Barium	Nitrogen) 10 (as Nitrogen) 1 (as Nitrogen) 0.01 2	4 0 7 0	2 0 4 0			12 0 10 0	10 0 9 0
2257 Inorgan 1038 1040 1041 1005 1010 1015	Epichlorohydrin ic Contaminants Total nitrate and nitrite Nitrate Nitrite Arsenic Barium Cadmium	Nitrogen) 10 (as Nitrogen) 1 (as Nitrogen) 0.01 2 0.005	4 0 7 0 0	2 0 4 0			12 0 10 0 0	10 0 9 0
2257 Inorgan 1038 1040 1041 1005 1010 1015 1020	Epichlorohydrin ic Contaminants Total nitrate and nitrite Nitrate Nitrite Arsenic Barium Cadmium Chromium	Nitrogen) 10 (as Nitrogen) 1 (as Nitrogen) 0.01 2 0.005 0.1	4 0 7 0 0 0	2 0 4 0 0 0			12 0 10 0 0 0	10 0 9 0 0
2257 Inorgan 1038 1040 1041 1005 1010 1015 1020 1024	Epichlorohydrin ic Contaminants Total nitrate and nitrite Nitrate Nitrite Arsenic Barium Cadmium Chromium Cyanide (as free cyanide)	Nitrogen) 10 (as Nitrogen) 1 (as Nitrogen) 0.01 2 0.005 0.1 0.2	4 0 7 0 0 0 0	2 0 4 0 0 0 0			12 0 10 0 0 0	10 0 9 0 0 0
2257 Inorgan 1038 1040 1041 1005 1010 1015 1020 1024 1025	Epichlorohydrin ic Contaminants Total nitrate and nitrite Nitrate Nitrite Arsenic Barium Cadmium Chromium Cyanide (as free cyanide) Fluoride	Nitrogen) 10 (as Nitrogen) 1 (as Nitrogen) 0.01 2 0.005 0.1 0.2 4	4 0 7 0 0 0 0	2 0 4 0 0 0 0			12 0 10 0 0 0 0	10 0 9 0 0 0 0
2257 Inorgan 1038 1040 1041 1005 1010 1015 1020 1024 1025 1035	Epichlorohydrin ic Contaminants Total nitrate and nitrite Nitrate Nitrite Arsenic Barium Cadmium Chromium Cyanide (as free cyanide) Fluoride Mercury	Nitrogen) 10 (as Nitrogen) 1 (as Nitrogen) 0.01 2 0.005 0.1 0.2 4 0.002	4 0 7 0 0 0 0	2 0 4 0 0 0 0			12 0 10 0 0 0 0 0	10 0 9 0 0 0 0
2257 Inorgan 1038 1040 1041 1005 1010 1015 1020 1024 1025 1035 1036	Epichlorohydrin ic Contaminants Total nitrate and nitrite Nitrate Nitrite Arsenic Barium Cadmium Chromium Cyanide (as free cyanide) Fluoride Mercury Nickel	Nitrogen) 10 (as Nitrogen) 1 (as Nitrogen) 0.01 2 0.005 0.1 0.2 4 0.002 na	4 0 7 0 0 0 0 0	2 0 4 0 0 0 0 0			12 0 10 0 0 0 0 0 0 0	10 0 9 0 0 0 0 0
2257 Inorgan 1038 1040 1041 1005 1010 1015 1020 1024 1025 1035 1036 1045	Epichlorohydrin ic Contaminants Total nitrate and nitrite Nitrate Nitrite Arsenic Barium Cadmium Chromium Cyanide (as free cyanide) Fluoride Mercury Nickel Selenium	Nitrogen) 10 (as Nitrogen) 1 (as Nitrogen) 0.01 2 0.005 0.1 0.2 4 0.002 na 0.05	4 0 7 0 0 0 0 0 0	2 0 4 0 0 0 0 0 0			12 0 10 0 0 0 0 0 0 0	10 0 9 0 0 0 0 0 0
2257 Inorgan 1038 1040 1041 1005 1010 1015 1020 1024 1025 1036 1045 1074	Epichlorohydrin ic Contaminants Total nitrate and nitrite Nitrate Nitrite Arsenic Barium Cadmium Chromium Cyanide (as free cyanide) Fluoride Mercury Nickel Selenium Antimony	Nitrogen) 10 (as Nitrogen) 1 (as Nitrogen) 0.01 2 0.005 0.1 0.2 4 0.002 na 0.05 0.006	4 0 7 0 0 0 0 0 0	2 0 4 0 0 0 0 0 0			12 0 10 0 0 0 0 0 0 0 0	10 0 9 0 0 0 0 0 0 0 0
2257 Inorgan 1038 1040 1041 1005 1010 1015 1020 1024 1025 1035 1036 1045	Epichlorohydrin ic Contaminants Total nitrate and nitrite Nitrate Nitrite Arsenic Barium Cadmium Chromium Cyanide (as free cyanide) Fluoride Mercury Nickel Selenium	Nitrogen) 10 (as Nitrogen) 1 (as Nitrogen) 0.01 2 0.005 0.1 0.2 4 0.002 na 0.05	4 0 7 0 0 0 0 0 0	2 0 4 0 0 0 0 0 0			12 0 10 0 0 0 0 0 0 0	10 0 9 0 0 0 0 0 0

State: Michigan Community Water Supply

Reporting Interval: January 1, 2019 - December 31, 2019

1094	Asbestos	7 million fibers/	0	0			0	0
Radionu	ıclides							
4000	Gross Alpha	15 pCi/l	0	0			1	1
4006	Combined Uranium	30 ug/l	0	0			0	0
4010	Radium 226 and Radium 228	5 pCi/l	4	1				
4100	Gross Beta	4 mrem/yr	0	0			0	0
	All Chemical Groups Subtotal		15	7	0	0	264	33

	Revised Total Coliform Rule (Effective April 2016)									
			MO	CLs	Treatment	Techniques	Significant Mon	itoring/Reporting		
SDWIS Codes	Contaminant	MCL (mg/*)1	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations		
1A	Acute MCL (E. coli)	Presence	0	0						
2A	Level 1 Assessment				0	0				
2B	Level 2 Assessment				0	0				
2C	Corrective action(s)				0	0				
2D	Startup procedures				0	0				
3A	Major routine monitoring						49	45		
3B	Additional monitoring (seasonal supplies)						0	0		
3C	Sampling during turbidity exceedence						0	0		
3D	Certified lab and/or lab method error						0	0		
4D	Notify state of E. coli positive						0	0		
4E	Notify state of E. coli MCL						0	0		
4F	Notify state of other violations						0	0		
5A	Sampling Siting Plan errors						1	1		
5B	Recordkeeping						0	0		
	RTCR Subtotal		0	0	0	0	50	46		

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	Lead and Copper Rule										
			M	CLs	Treatment	Techniques	Significant Mon	itoring/Reporting			
SDWIS Codes	Contaminant	MCL (mg/*)1	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations			
51	Initial lead and copper tap M/R						5	5			
52	Routine lead and copper tap M/R						90	79			
53	Water Quality Parameter M/R						50	34			
56	Source Water M/R						0	0			
57	Treatment study or recommendation				0	0					
58	Treatment installation or demonstration				0	0					
59	WQP level noncompliance				2	1					
63	Copper, Free				0	0					
64	Lead Service Line Replacement				0	0					
65	Public Education				0	0					
66	Lead Consumer Notification						51	49			
	LCR Subtotal				2	1	196	140			

	Consumer Confidence Report Rule									
			MCLs		Treatment Techniques		Significant Monitoring/Reporting			
SDWIS Codes	Contaminant	MCL (mg/*)1	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations		
71	Failure to produce CCR						34	31		
	CCR Subtotal						34	31		

	Public Notification Rule									
			MCLs		Treatment Techniques		Significant Monitoring/Reportin			
SDWIS Codes	Contaminant	MCL (mg/*)1	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations		
75	PN for NPDWR violation						1	1		
	PN Subtotal						1	1		

	Surface Water Treatment Rules									
			M	CLs	Treatment	Techniques	Significant Mon	itoring/Reporting		
SDWIS Codes	Contaminant	MCL (mg/*)1	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations		
9	Failure to keep proper records						0	0		
29	Individual filter triggered activities						0	0		
32	Source monitoring (LT2)						0	0		
33	Failure to submit bin class (LT2)						0	0		
	Monitoring (SWTR-Filtered)						1	1		
38	Filter effluent monitoring/reporting						0	0		
37	Failure to profile / consult				0	0				
	Turbidity / disinfection residual				0	0				
41-0800	Failure of microbial treatment (LT2)				0	0				
42-0200	Failure to filter				0	0				
42-0800	Failure to provide LT2 treatment				0	0				
43	Combined filter effluent > 1 NTU				0	0				
44	> 5% comb. filter effluent > 0.3 NTU				0	0				
45	Failure to address deficiency				0	0				
47	Uncovered finished water storage				0	0				
	SWTRs Subtotal				0	0	1	1		

	Disinfectants and Disinfection Byproducts Rules										
			MCLs /	MRDLs	Treatment	Techniques	Significant Mon	itoring/Reporting			
SDWIS Codes	Contaminant	MCL / MRDL (mg/*)1	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations			
1009	Chlorite	1.0	0	0							
1011	Bromate	0.010	0	0							
2456	Total Haloacetic Acids	0.060	0	0							
2950	Total Trihalomethanes	0.080	0	0							
2920	Carbon, Total										
0999	Chlorine	4.0	0	0							
1006	Chloramines	4.0	0	0							
35	Failure to Submit OEL for TTHM										
11/1008	Chlorine Dioxide, non-acute	0.8	0	0							
13/1008	Chlorine Dioxide, acute	0.8	0	0							
12	Certified treatment plant operator				1	11					
46	Inadequate precusor removal (TOC)				0	0					
	DBPRs Subtotal		0	0	1	1	145	77			

State: Michigan Community Water Supply

	Ground Water Rule									
			М	CLs	Treatment	Techniques	Significant Monitoring/ Reporting/Other			
SDWIS Codes	Contaminant	MCL (mg/*)1	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations		
19	Source water assessment monitoring						0	0		
31	Failure to monitor treatment (4-log)						0	0		
34	Failure to monitor source water						22	22		
41	Failure of microbial treatment (4-log)				0	0				
42	Failure to provide treatment				0	0				
45	Failure to address significant deficiency				9	5				
48	Failure to address contamination				0	0				
5	Failure to notify state						0	0		
9	Failure to maintain records						0	0		
20	Failure to consult with state						2	2		
28	Sanitary survey cooperation failure						0	0		
73	Failure to notify consecutive system(s)						0	0		
	GWR Subtotal				9	5	24	24		

¹ Values are in milligrams per liter (mg/l), unless otherwise specified.

Cummany Table	
Summary Table	
Total Number of Regulated Systems	1,381
Total Number of Systems in Violation	
(generally lower than the total number of violations, as one	335
system may violate multiple requirements)	
Total Number of Violations	742